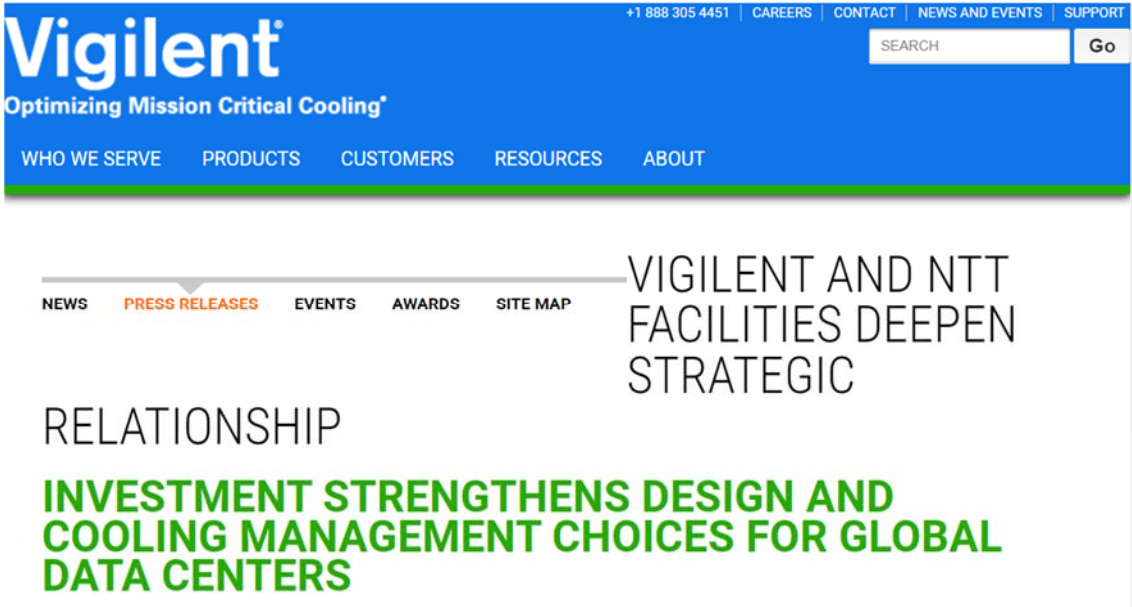

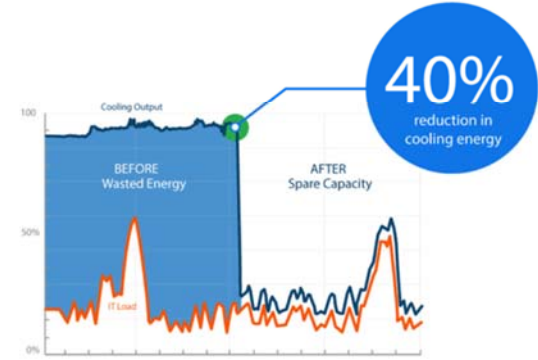


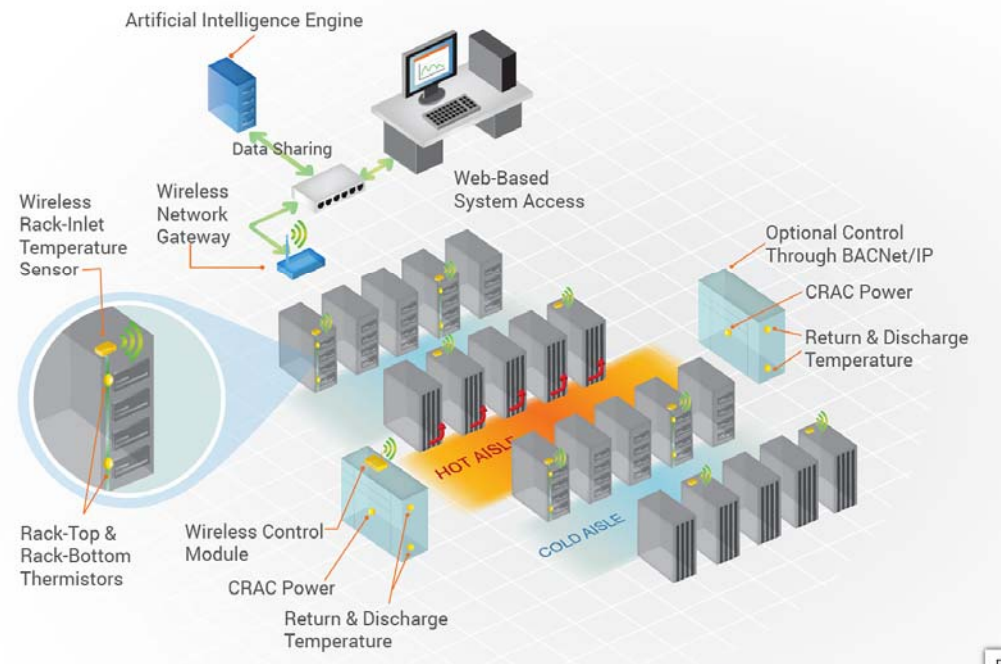
Exhibit 12

U.S. Patent No. 7,339,490 – Infringement Claim Chart

Claim 1	Exemplary Evidence of Infringement by NTT
<p>[1pre] A modular sensor assembly for sensing a condition at a computer rack, comprising:</p>	<p>NTT's data centers use a modular sensor assembly for sensing a condition at a computer rack.</p> <p>For example, NTT uses Vigilent's cooling optimization tools in all of its U.S. data centers, which uses modular sensor assemblies for sensing conditions such as temperature at a computer rack.</p>  <p>The screenshot shows the Vigilent website header with the logo 'Vigilent' and tagline 'Optimizing Mission Critical Cooling*'. The navigation bar includes links for 'WHO WE SERVE', 'PRODUCTS', 'CUSTOMERS', 'RESOURCES', and 'ABOUT'. Below the navigation bar, there is a section for 'PRESS RELEASES' with a sub-header 'VIGILENT AND NTT FACILITIES DEEPEN STRATEGIC RELATIONSHIP'. The main text of the press release reads: 'INVESTMENT STRENGTHENS DESIGN AND COOLING MANAGEMENT CHOICES FOR GLOBAL DATA CENTERS'. At the bottom of the screenshot, the URL https://www.vigilent.com/vigilent-and-ntt-facilities-deepen-strategic-relationship/ is provided.</p> <p>https://www.vigilent.com/vigilent-and-ntt-facilities-deepen-strategic-relationship/</p>


Claim 1	Exemplary Evidence of Infringement by NTT
	<div data-bbox="793 302 1293 427"></div> <div data-bbox="793 464 1163 563"><h1>Vigilent®</h1></div> <div data-bbox="793 609 1182 639"><h2>PROJECT AT-A-GLANCE</h2></div> <div data-bbox="793 646 1293 1026"><ul style="list-style-type: none">▪ NTT Communications set out to improve the overall energy efficiency of its two largest US data centers▪ Technology from Vigilent was used to manage cooling systems more efficiently▪ NTT managed to eliminate or power down nearly half of its existing cooling units▪ Savings included an overall 20% reduction in cooling energy used across the two sites▪ Other results included PUE improvements and a reduction in carbon emissions</div> <div data-bbox="812 1122 1883 1211"><p>Representatives from NTT Facilities and Vigilent discuss the results of NTT Facilities deploying the Vigilent Dynamic Cooling Management System.</p></div> <div data-bbox="760 1282 1577 1320"><p>https://www.vigilent.com/case-study-ntt-facilities-and-vigilent/</p></div>


Claim 1	Exemplary Evidence of Infringement by NTT
	<p data-bbox="772 267 1633 357">VIGILENT CONTINUOUSLY MATCHES COOLING OUTPUT TO HEAT LOAD</p> <p data-bbox="772 373 1159 402">Optimized airflow eliminates hot spots.</p> <p data-bbox="772 418 1123 568">Vigilent continuously optimizes the airflow in your facility, delivering improved reliability and availability. The system automatically finds and eliminates hot spots, while its comprehensive reports and tools facilitate easier operations management.</p> <p data-bbox="772 600 1123 779">Our system delivers the right amount of cooling exactly where it's needed. This typically results in up to a 40% reduction in carbon emissions and your cooling energy bill. We achieve that with sophisticated AI-based technology that learns your environment and adapts to change.</p> <div data-bbox="1176 422 1711 779">  </div> <p data-bbox="772 812 1606 844">https://www.vigilent.com/who-we-serve/by-facility/data-centers/.</p>


Claim 1**Exemplary Evidence of Infringement by NTT****THE VIGILENT DATA CENTER™**


<https://www.vigilent.com/products-and-services/dynamic-control/>


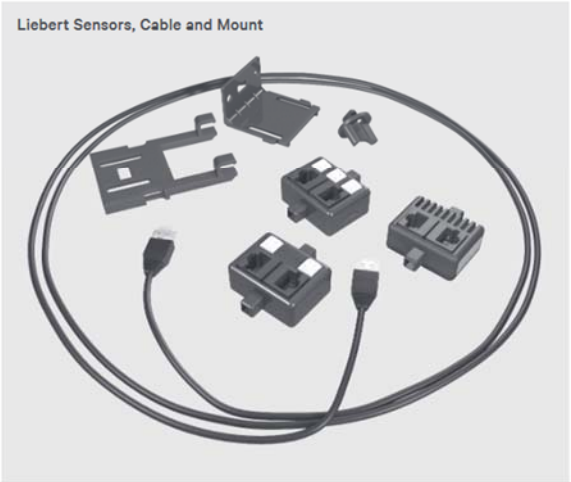
NTT also uses Vertiv and Liebert cooling in its U.S. data centers to control atmospheric conditions. On information and belief, NTT's Liebert cooling units are used in conjunction with Liebert's modular sensors, which are used to sense conditions such as temperature, humidity, and door-open status at a computer rack.


Claim 1	Exemplary Evidence of Infringement by NTT
	<div data-bbox="766 261 1801 878"><p>Welcome to NTT's Ashburn, VA Data Center Campus</p><p>26 carriers</p></div> <div data-bbox="766 901 1808 974"><p>https://services.global.ntt/en-us/services-and-products/global-data-centers/global-locations/americas/ashburn-va-1-data-center</p></div>

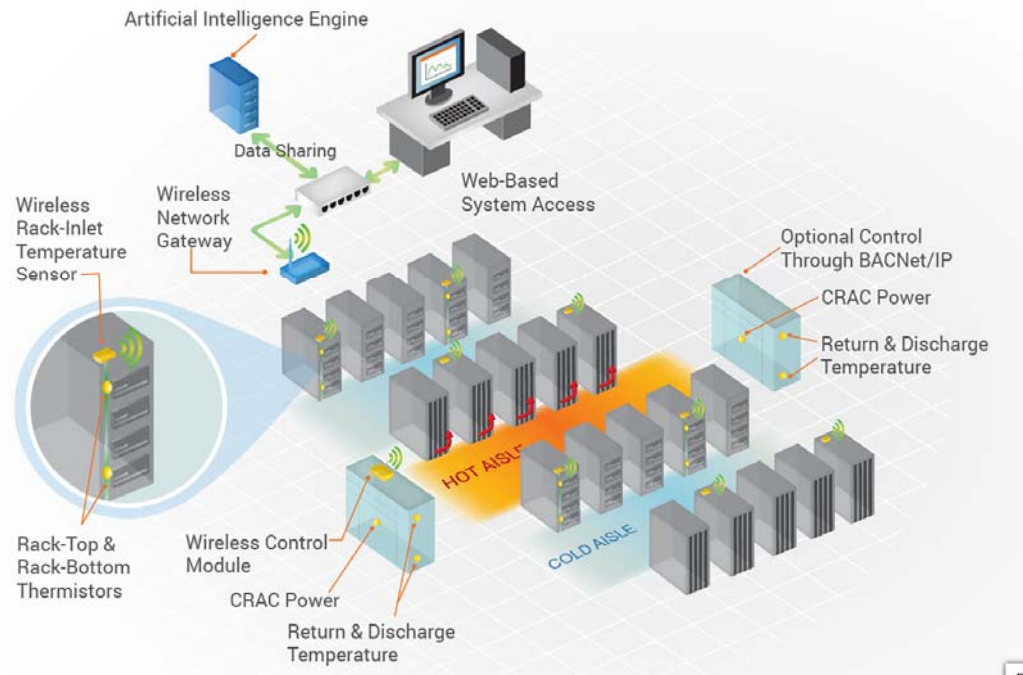
Claim 1	Exemplary Evidence of Infringement by NTT
	<div data-bbox="772 267 1890 863">  </div> <p data-bbox="760 885 1810 954"> https://services.global.ntt/en-us/services-and-products/global-data-centers/global-locations/americas/hillsboro-hi1-data-center </p> <p data-bbox="772 982 1873 1133"> Maintaining optimal temperatures in a data vault is essential to keeping critical infrastructure up and running. At our Chicago CH1 Data Center, we recirculate the heat produced in each of the 6MW vaults using our Vertiv Liebert fan walls. As warm air is exhausted from densely stacked servers into a contained hot aisle, the fan walls output cool 75°F air at a rate designed to maintain a constant pressure differential between the cold and hot aisles of our clients' racks. The hot air is channeled into a common return plenum and then back to the fan walls where the cycle begins again. The units themselves are carefully placed throughout the vault to ensure that the entire vault meets the CFD modeling and hot spots are minimized. Click here to learn more about our Chicago data center. </p> <p data-bbox="760 1169 1726 1205"> https://services.global.ntt/en-us/insights/blog/chicago-construction-updates </p>

Claim 1	Exemplary Evidence of Infringement by NTT
	<p data-bbox="800 261 1545 362">With scalable pre-fabricated solutions like Vertiv™ SmartMod™ and the quickly deployed Power Module, Vertiv is standardizing modular systems so you can get your data center running, faster.</p> <p data-bbox="800 435 926 459">Vertiv.com</p>  <p data-bbox="766 919 1785 951">https://issuu.com/businessreviewusa/docs/bro_bc_usa_ragingwire_data_centers</p>

Claim 1	Exemplary Evidence of Infringement by NTT
	<p>SmartMod incorporates:</p> <ul style="list-style-type: none"> • Modular and scalable Vertiv™ Liebert® UPS power protection • Close-coupled in-row Liebert® CRD thermal management units with intelligent iCOM™ Edge controls <p>2</p> <p>https://www.vertiv.com/4ad535/globalassets/products/critical-power/integrated-solutions/vertiv-smartmod-na-brochure_0.pdf</p> <div data-bbox="766 889 1875 1214">  <p>The image shows a dark gray rectangular box containing the Vertiv logo (a stylized 'V' inside a circle) and the word 'VERTIV' with a trademark symbol. To the right, the word 'Liebert' is followed by a registered trademark symbol. Below 'Liebert', the text reads: 'iCOM™ Thermal System Controls', 'Greater Data Center Protection,', and 'Efficiency & Insight'.</p> </div> <p>https://www.vertiv.com/49d637/globalassets/shared/liebert-icom-thermal-system-controls-brochure.pdf (“iCOM Brochure”).</p>

Claim 1	Exemplary Evidence of Infringement by NTT
	<div data-bbox="772 261 1138 370"> <p>LIEBERT® SN™ MODULAR SENSORS Quick Installation Guide</p> </div> <div data-bbox="1444 256 1642 305">  VERTIV </div> <div data-bbox="772 406 1033 511"> <p>The Liebert SN modular sensors monitor temperature, humidity, door-open status, and digital input, such as smoke or water, in any area.</p> </div> <div data-bbox="772 511 1018 576"> <p>These instructions apply to the following Liebert SN modular-sensor models:</p> </div> <div data-bbox="787 576 1033 743"> <ul style="list-style-type: none"> • SN-T—1 temperature probe • SN-TH—1 temperature probe and 1 humidity probe • SN-2D—1 door-switch probe with 2 inputs • SN-3C—1 digital-input probe with 3 inputs </div> <div data-bbox="772 743 1033 812"> <p>Each modular sensor ships with a 6.6-ft (2-m) cable to connect with a Liebert monitoring product.</p> </div> <div data-bbox="772 815 940 860"> <p>SENSOR-STRING COMPATIBLE</p> </div> <div data-bbox="772 863 1018 889"> <p>You can attach the sensors in a</p> </div> <div data-bbox="1075 406 1642 885"> <p>Liebert Sensors, Cable and Mount</p>  </div>

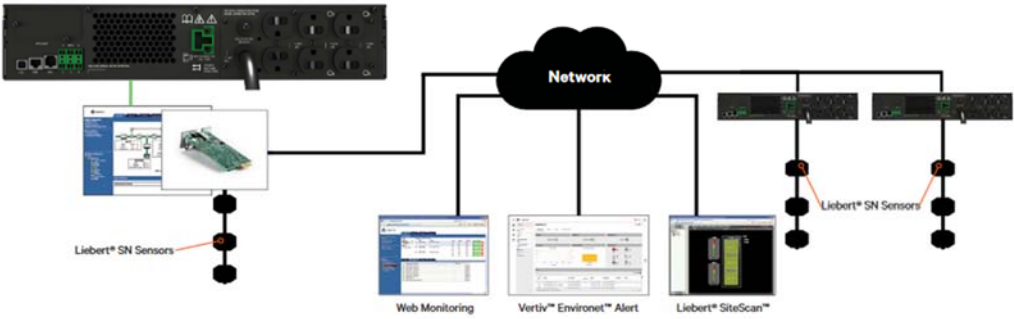
Claim 1	Exemplary Evidence of Infringement by NTT
	<p>2. Assemble the sensor and bracket If using the supplied bracket and base:</p> <ul style="list-style-type: none"> • Insert the support base into the end of the support. • Snap the sensor into the other end of the support. <p>3. Choose a mounting location Keeping in mind that the temperature and humidity sensors require an unobstructed air flow, and that the sensor does not obstruct vents and impede air flow, select a mounting location. The installation parts needed for various mounting options are included with the sensor. You can install the sensor on rack rails, rack doors, and on a flat surface.</p> <p>MOUNT THE SENSOR Use the step appropriate to your chosen mounting method:</p> <p>4. Mounting on a Knurr® Rack-frame or 19-in. Rail Insert the quarter-turn, tool-less fastener a slot on the support or base, place the bracket on the frame or rail, and turn the fastener clockwise (1/4 turn) to secure the sensor in place.</p> <p>5. Mounting on rack door</p> <ul style="list-style-type: none"> • On a Knurr rack (only), use the supplied screws through the slots on the support or use the quarter-turn fastener to secure the sensor to the door. • On all other racks (including Knurr), use cable ties to secure the sensor or support bracket to the door. <p>6. Mounting on a flat surface Clean the mounting location with the supplied alcohol pad(s), then affix the sensor support to the surface using the supplied Dual Lock fasteners.</p> <p>7. Mounting on a rack rail This method requires a standard, pan-head rack screw, not supplied with the sensor. Use the pan-head rack screw through a slot on the sensor support or base to secure the sensor in place.</p> <p>CONNECT THE SENSOR The integrated cable connects to the SN Sensor port on your Liebert product. The Liebert SN sensor ports are RJ45 ports designated with the sensor-port icon.</p> <p> ports are RJ45 ports designated with the sensor-port icon.</p> <p>NOTE: Only use the SN sensor port to connect Liebert SN sensors.</p> <p>CONFIGURE THE SENSOR Using the sensor address recorded before installation, use the web user interface of your Liebert product to acknowledge the sensor connection and configure parameters including labeling the sensor and setting thresholds for alarm/warning triggers.</p> <p>https://www.vertiv.com/49782f/globalassets/shared/liebert-sn-modular-sensors-quick-start-guide_00.pdf</p>
[1a] a) an elongate flexible body, configured to attach to a computer rack;	<p>NTT's modular sensor assemblies comprise an elongate flexible body, configured to attach to a computer rack.</p> <p>For example, NTT uses Vigilent's cooling optimization. The figure below shows Vigilent's cooling optimization system uses thermistors with an elongate flexible body configured to attach to a computer rack:</p>

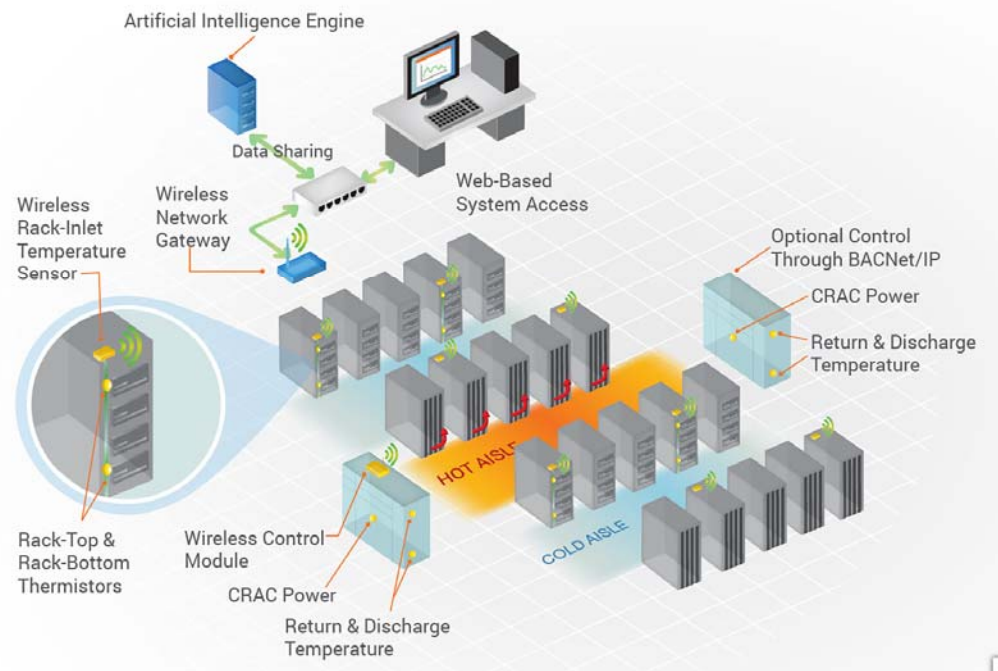
Claim 1**Exemplary Evidence of Infringement by NTT****THE VIGILENT DATA CENTER™**

<https://www.vigilent.com/products-and-services/dynamic-control/>

NTT also uses Liebert cooling units with Liebert sensors. Liebert modular sensors attached in a strong consist of an elongate flexible body that attaches to a computer rack frame, rail, or door.

Claim 1	Exemplary Evidence of Infringement by NTT
	<p>SENSOR-STRING COMPATIBLE</p> <p>You can attach the sensors in a string, and the string can be a combination of integrated and modular sensors. (Integrated sensors are one or more probes integrated on a single cable.)</p> <p>A string may include up to 10 probes and be a maximum of 65.6 ft (20 m).</p> <p>The number of probes that may be used with Liebert monitoring products varies. Refer to the product's user guide for details.</p> <p>https://www.vertiv.com/49782f/globalassets/shared/liebert-sn-modular-sensors-quick-start-guide_00.pdf</p>

Claim 1	Exemplary Evidence of Infringement by NTT
	<p data-bbox="783 264 1163 297">Vertiv™ Liebert® SN Sensors</p> <p data-bbox="1717 264 1860 297">VERTIV</p> <p data-bbox="783 370 1075 394">Vertiv™ Liebert® GXT5 UPS</p>  <p data-bbox="766 760 1871 824">https://www.vertiv.com/4a84b9/globalassets/shared/liebert-sn-sensors-monitoring-for-business-critical-continuity2.pdf</p>
[1b] b) a plurality of addressable sensors, disposed along the body and interconnected to a common connector wire; and	<p data-bbox="766 854 1881 919">NTT's modular sensor assemblies comprise a plurality of addressable sensors, disposed along the body and interconnected to a common connector wire.</p> <p data-bbox="766 951 1822 1081">For example, NTT uses Vigilent's cooling optimization. The figure below shows Vigilent uses a plurality of addressable sensors disposed along the body and interconnected to a common connector wire, which in turn connects to the wireless network device:</p>

Claim 1**Exemplary Evidence of Infringement by NTT****THE VIGILENT DATA CENTER™**

<https://www.vigilent.com/products-and-services/dynamic-control/>

NTT also uses Liebert cooling units with Liebert sensors. Liebert modular sensors are disposed along the body and interconnected to a common connector wire (string) and are addressable.

SENSOR-STRING COMPATIBLE

You can attach the sensors in a string, and the string can be a combination of integrated and modular sensors. (Integrated sensors are one or more probes integrated on a single cable.)

A string may include up to 10 probes and be a maximum of 65.6 ft (20 m).

The number of probes that may be used with Liebert monitoring products varies. Refer to the product's user guide for details.

PREPARING FOR INSTALLATION

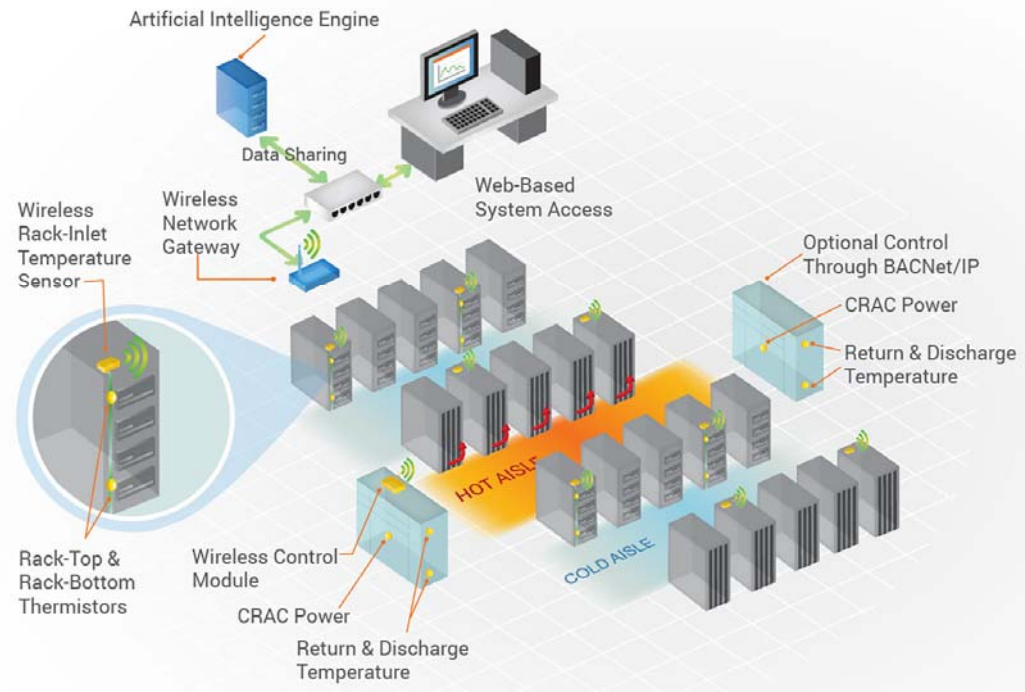
1. Record the address of each sensor.

During configuration, the web user interface displays the addresses of all connected sensors.

Before mounting or connecting, locate the sensor address on the sensor housing (see the picture on the following page) and record it.


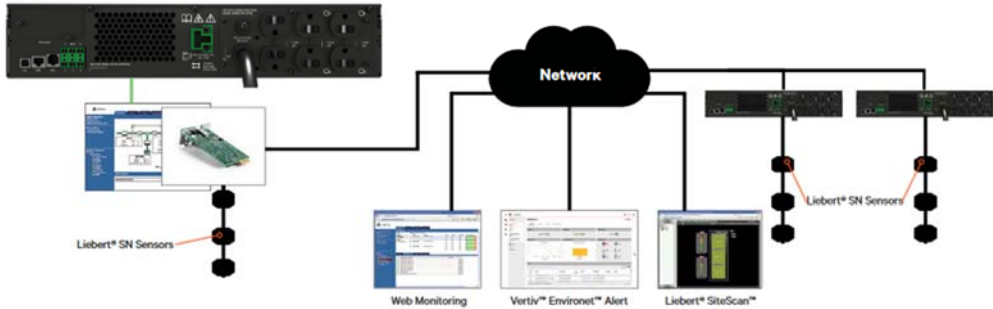


Claim 1	Exemplary Evidence of Infringement by NTT
	https://www.vertiv.com/49782f/globalassets/shared/liebert-sn-modular-sensors-quick-start-guide_00.pdf
<p>[1c] c) a connector wire lead, configured to interconnect the connector wire to a central system configured to receive and interpret data from the plurality of sensors relating to conditions associated with the computer rack.</p>	<p>NTT's modular sensor assemblies comprise a connector wire lead, configured to interconnect the connector wire to a central system configured to receive and interpret data from the plurality of sensors relating to conditions associated with the computer rack.</p> <p>For example, NTT uses Vigilent's cooling optimization. The figure below shows Vigilent's wireless network gateway is hardwired to the AI Engine and Web-Based System access via a network switch. The network gateway receives data from all inlet temperature sensors, return temperature and the discharge air temperature of the CRAC.</p>

Claim 1**Exemplary Evidence of Infringement by NTT****THE VIGILENT DATA CENTER™**

<https://www.vigilent.com/products-and-services/dynamic-control/>

NTT also uses Liebert cooling units with Liebert sensors. Liebert modular sensors string at each computer rack is interconnected to a central system (network) to receive and interpret the sensors from multiple computer racks. The networked sensor system is configured with thresholds for alarm and warning triggers.

Claim 1	Exemplary Evidence of Infringement by NTT
	<div data-bbox="772 261 1852 347"> <p>Vertiv™ Liebert® SN Sensors</p>  </div> <div data-bbox="779 365 1071 393"> <p>Vertiv™ Liebert® GXT5 UPS</p> </div> <div data-bbox="779 407 1766 714">  </div> <div data-bbox="758 745 1883 818"> <p>https://www.vertiv.com/4a84b9/globalassets/shared/liebert-sn-sensors-monitoring-for-business-critical-continuity2.pdf</p> </div> <div data-bbox="768 844 1161 878"> <p>CONFIGURE THE SENSOR</p> </div> <div data-bbox="768 889 1194 1146"> <p>Using the sensor address recorded before installation, use the web user interface of your Liebert product to acknowledge the sensor connection and configure parameters including labeling the sensor and setting thresholds for alarm/warning triggers.</p> </div> <div data-bbox="758 1180 1877 1252"> <p>https://www.vertiv.com/49782f/globalassets/shared/liebert-sn-modular-sensors-quick-start-guide_00.pdf</p> </div>